

CableLabs.

Cable Television Laboratories, Inc.

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DEC 15 2000

December 15, 2000

**FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY**

Magalie R. Salas
Secretary
Federal Communications Commission
445 12th Street, SW
Room TW-A325
Washington, D.C. 20554

Re: Commercial Availability of Navigation Devices (CS Docket No. 97-80); and
Compatibility Between Cable Systems and Consumer Electronics Equipment (PP Docket No. 00-67)

Dear Ms. Salas:

On behalf of Cable Television Laboratories, Inc. ("CableLabs") and the multiple system operators cited in the above referenced proceedings, and in accordance with my letter of November 17, 2000 I am submitting a final POD Host Interface License Agreement.

If you have any questions, please do not hesitate to contact me.

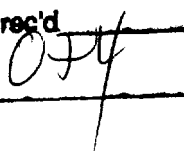
Sincerely,

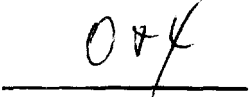


Richard R. Green, Ph.D.
President and Chief Executive Officer

cc:	Honorable William E. Kennard	Deborah Klein, Division Chief, Consumer Protection and & Competition Division
	Honorable Susan Ness	Bruce A. Franca, Acting Chief, Office of Engineering & Technology
	Honorable Gloria Tristani	Robert M. Pepper, Chief, Office of Plans & Policy
	Honorable Michael K. Powell	Jonathan Levy, Economist, Office of Plans & Policy
	Honorable Harold Furchtgott-Roth	Amy Nathan, Senior Legal Counsel, Office of Plans & Policy
	Deborah Lathen, Chief, Cable Services Bureau	
	William Johnson, Deputy Chief, Cable Services Bureau	

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

NONEXCLUSIVE POD-HOST INTERFACE LICENSE AGREEMENT

THIS NONEXCLUSIVE POD-HOST INTERFACE LICENSE AGREEMENT (the "**Agreement**") is entered into this ____ day of December, 2000 (the "**Effective Date**"), by and between _____, having a place of business at _____ ("**Licensee**") and Cable Television Laboratories, Inc., having a place of business at 400 Centennial Parkway, Louisville, Colorado USA 80027-1266 ("**CableLabs**").

RECITALS

WHEREAS, CableLabs is a research and development company funded by the cable television industry;

WHEREAS, Licensee is in the business of, among other things, designing, developing, manufacturing and distributing components for use in the cable television industry;

WHEREAS, CableLabs through its OpenCable project has specified a set of functional requirements and interfaces to foster interoperability and retail availability among advanced digital set-top terminals and navigation devices to be deployed in cable networks. The OpenCable project includes specifications whereby national control centers and/or cable system head-ends may communicate with individual addressable POD Modules (as defined below) which are connected to set-top terminals or navigation devices for authorizing or de-authorizing digital services on a program by program basis (the "**OpenCable HOST-POD Specifications**"). The OpenCable HOST-POD Specifications include an Interface Specification, (the "**OpenCable HOST-POD Interface Specification**"), and a specification for protecting the content sent across such interface which includes the DFAST scrambling techniques (the "**OpenCable POD Copy Protection System Specification**");

WHEREAS, CableLabs has the rights to such DFAST scrambling technology, portions of which are embodied in a U.S. patent and foreign equivalents;

WHEREAS, CableLabs desires to grant licenses to the DFAST scrambling technology to allow manufacturers to create POD Modules and compatible Host Devices (as defined below) that are interoperable and Licensee desires to acquire a license to develop and evaluate the DFAST scrambling technology for the purpose of creating and distributing POD Modules or Host Devices as called for in the OpenCable HOST-POD Specifications.

WHEREAS, CableLabs desires to condition the grant of a license hereunder on CableLabs' verification that POD Modules and compatible Host Devices comply with the OpenCable HOST-POD Specifications, other applicable OpenCable specifications and the requirements of this Agreement and that such devices are also interoperable in order to foster retail availability.

NOW THEREFORE, in consideration of the terms and conditions set forth in this Agreement, the parties hereby agree as follows:

AGREEMENT

1. Definitions.

1.1 “Activation” means that the Licensee has executed an activation notice referenced in Section 3.2 and in the form of Exhibit D that is required to activate the Licensee’s manufacturing license.

1.2 “Cable Operator” means any cable operator that CableLabs identifies on its <www.cablelabs.com> website as a member.

1.3 “CableLabs Technology” means:

(a) the OpenCable HOST-POD Specifications and the DFAST Technology, provided however, that CableLabs Technology does not include any third party proprietary technology referenced in or required by the OpenCable HOST-POD Specifications, such as DES, DTCP, or MPEG-2; and

(b) user manuals and other written materials (whether in print or electronic form) that relate to the OpenCable HOST-POD Specifications and/or the DFAST Technology that have been provided by CableLabs hereunder, including materials for design (for example, flow charts and principles of installation, configuration, administration, and operation) and machine readable text or graphic files subject to display or print-out (“**Documentation**”).

1.4 “Certify” means the CableLabs’ controlled process to verify that a proposed Host Device or POD Module meets the Certification Criteria set forth in Exhibit A attached hereto (a “**Certification**”) as may be reasonably amended from time to time by CableLabs in accordance with changes made to the OpenCable HOST-POD Specifications made following the OpenCable Change Process (as defined below) and as disclosed to Licensee; “**Certified**” means that the Host Device has obtained Certification, and “**Qualified**” means that the POD Module has obtained Certification.

1.5 “Compliance Rules” mean the rules described on Exhibit C hereto which apply to POD Modules and Host Devices and are for the purpose of preventing the unauthorized copying of Controlled Content.

1.6 “Controlled Content” means content that has been transmitted from the headend with the encryption mode indicator (“EMI”) bits set to a value other than zero, zero (0,0).

1.7 “Core Functional Requirements” mean those OpenCable functional requirements for Host Devices; and include the Unidirectional Set-Top Box, the Unidirectional Terminal, the Bidirectional Set-Top Box, the Bidirectional Terminal, and the Bidirectional Set-Top Box with DOCSIS and other new versions that may be added as described below in Section 3.5.

1.8 “Derivative Work” means any work that is based upon CableLabs Technology, other than the OpenCable HOST-POD Specifications, such as a revision, improvement, enhancement, modification, translation, abridgment, condensation, expansion, collection, compilation or other form in which such CableLabs Technology may be recast, transformed, ported or adapted and that, if prepared without authorization of CableLabs, would constitute infringement.

1.9 “DFAST Technology” means the Licensed Patent(s) collectively with the Licensed Know-How.

1.10 “Essential Patent Claim(s)” means claims of a patent or patent application, issued now or in the future, that read on implementations of DFAST Technology in Certified Host Devices and/or Qualified POD Modules, including any claims that cannot be designed around or that would be commercially or technically infeasible to design around. Essential Patent Claims do not include any claims other than those set forth above even if contained in the same patent as Essential Patent Claims.

1.11 “Host Device” means a set-top terminal or navigation device for selecting Services on a program by program basis and that conforms to the OpenCable HOST-POD Specifications, other applicable OpenCable Specifications and utilizes the CableLabs Technology.

1.12 “Intellectual Property Rights” means all intellectual property rights worldwide arising under statutory law, common law or by contract, and whether or not perfected, including, without limitation, all (a) patents, patent applications and patent rights, (b) rights associated with works of authorship including copyrights, copyright applications, copyright registrations, mask work rights, mask work applications, mask work registrations, and Derivative Works of the foregoing (c) rights relating to the protection of trade secrets and confidential information, (d) trademarks, trade dress, trade name, design patent and service mark rights, whether or not registered and (e) divisions, continuations, continuations in part, renewals, reissues and extensions of the foregoing (as and to the extent applicable) now existing, hereafter filed, issued or acquired.

1.13 “Licensed Components” means component products which utilize the DFAST Technology and which are designed for incorporation into Prototypes, Certified Host Devices and/or Qualified POD Modules.

1.14 “Licensed Know-How” means all know-how, associated technology, trade secrets, copyrighted works, reference source code implementations, shared secret keys, Diffie-Hellman system parameters, encryption and decryption keys, software development tools, methodologies, processes, technologies or algorithms, test data sets and test cases and other implementations of technology that CableLabs shall deliver to Licensee to assist in incorporating the DFAST Technology into Host Devices or POD Modules.

1.15 “Licensed Patents” means U.S. Licensed Patent 4,860,353, any application, division, continuation or continuation in part of the foregoing patent, any patent reissuing on or reissuing pursuant to a reexamination of the foregoing patent and all foreign equivalents,

together with any application or patent containing one or more Essential Patent Claims that may be licensable by CableLabs in the future. In the event that CableLabs may obtain by assignment, license, or other agreement in the future transferable rights under an application or patent containing Essential Patent Claims, CableLabs shall have the right to pass through to Licensee any royalties that may be owed by CableLabs under such assignment, license, or agreement based upon those activities of Licensee that are covered by the Essential Patent Claims.

1.16 “Licensed Product” means the Licensee’s POD Module and/or Host Device, or either or both, and includes Licensed Components.

1.17 “OpenCable Change Process” means the process described on Exhibit E for making changes to the OpenCable HOST-POD Specifications.

1.18 “OpenCable HOST-POD Specifications” mean the OpenCable HOST-POD Interface Specification and the OpenCable POD Copy Protection System Specification, as posted on the <www.opencable.com> website.

1.19 “Prototype” means a pre-production model of a Host Device or a POD Module.

1.20 “POD Module” means an individual addressable device for authorizing and de-authorizing the decryption or descrambling of Services and individual programs and events delivered through the Host Device on a Service by Service or individual program or event basis that conforms to the OpenCable HOST-POD Specifications and utilizes the CableLabs Technology.

1.21 “Robustness Rules” mean the rules described on Exhibit B hereto which apply to POD Modules and Host Devices and are for the purpose of resisting attempts to modify POD Modules or Host Devices to defeat the functions of the OpenCable HOST-POD Specifications or the Compliance Rules.

1.22 “Service” means video, audio, or data signals, whether in analog or digital format, transmitted over the cable system to (or from) the Host Device, for the purposes of effectuating the reception or transmission of information, entertainment, or communications content.

1.23 “Test Tools” means devices which have the capability to utilize the DFAST Technology and which have as their purpose the testing or verification of the performance of Host Devices and/or POD Modules and their prototypes.

2. Licenses Grants and Restrictions.

2.1 Limited Development Right. Upon the execution of this Agreement and payment of the License Fee, subject to the terms and conditions set forth herein, including without limitation the Robustness Rules and the Compliance Rules, Licensee shall have the limited right:

(a) to possess and use the CableLabs Technology to develop and test no more than one thousand each Prototype Host Devices and/or POD Modules, Test Tools, and Licensed Components which are designed for incorporation into Prototypes,

(b) to distribute the Test Tools and Licensed Components only to entities who have obtained a license from CableLabs for the use of the CableLabs Technology (the “**CableLabs Technology Licensees**”),

(c) to exchange information about and test interoperability with the DFAST Technology only with other CableLabs Technology Licensees, and

(d) to distribute Prototypes to Cable Operators and other cable television multiple system operators in North America for the purpose of field trials and technology evaluation and not for retail.

2.2 Full License for CableLabs Technology. Subject to the terms and conditions set forth herein, including without limitation the Robustness Rules and the Compliance Rules, and upon the delivery of the Activation Notice to CableLabs in accordance with Section 3.2 hereof, CableLabs hereby grants to Licensee, and Licensee hereby accepts from CableLabs, a non-exclusive, non-transferable (except as set forth in Sections 2.3, 2.4 and 12.7 hereof) world-wide license under CableLabs’ Intellectual Property Rights in the CableLabs Technology to:

(a) make, have made, use, sell, offer to sell, export, import and otherwise distribute Certified Host Devices and/or Qualified POD Modules utilizing the CableLabs Technology;

(b) practice any method or process under the CableLabs Technology solely as necessary for the manufacture or use thereof in accordance with the terms and conditions of this Agreement;

(c) make, have made, use, sell, offer to sell, import and otherwise distribute Derivative Works made by Licensee of the CableLabs Technology, *provided that* Licensee’s rights under this Section 2.2(c) shall be exercised solely in connection with the creation, manufacture and distribution of the Certified Host Devices or Qualified POD Modules;

(d) use and reproduce the Documentation in order to modify the Documentation as reasonably required in connection with Licensee’s creation of Derivative Works in accordance with this Agreement; and

(e) distribute the modified Documentation directly to customers in connection with the distribution of Certified Host Devices or Qualified POD Modules in accordance with this Agreement, provided that such modified Documentation shall not reveal any confidential information contained in the CableLabs Technology.

2.3 Limited Right for Test Tools. Licensee shall have the limited right to make, have made, use, sell, offer to sell and otherwise distribute Test Tools, subject to the following limitations:

(a) Licensee shall distribute the Test Tools containing the DFAST Technology only to CableLabs Technology Licensees. Licensee must separately maintain records of sales of Test Tools, and Licensee shall provide the names and addresses of each purchaser to CableLabs.

Copies of such contracts for the distribution of Test Tools must be available for inspection by CableLabs with respect to the provisions relevant to the requirements of this Section 2.3.

(b) Licensee shall limit the use of Test Tools for the purposes of ensuring proper operation, testing, debugging, integration and tuning. For the purposes of this Section 2.3 (b), (i) “testing” shall mean a process of evaluating a Prototype to ensure proper operation; (ii) “debugging” shall mean a process of finding the cause of an error in a Prototype or Licensed Product, including analysis for the purpose of exposing possible design flaws; (iii) “integration” shall mean a process of evaluating the performance of a Prototype or a Licensed Product with a POD Modules (in the case of a Host Device Test Tool) or Host Devices (in the case of a POD Module Test Tool), as the case may be, to ensure that they properly operate together; and (iv) “tuning” shall mean a process of evaluating and improving a Prototype or Licensed Product to work more efficiently with a POD Module or a Host Device, as the case may be.

2.4 Limited Right for Licensed Components. Licensee shall have the limited right to make, have made, use, sell, offer to sell and otherwise distribute Licensed Components, subject to the following limitations:

(a) Licensee shall distribute the Licensed Components containing DFAST Technology only to CableLabs Technology Licensees. Licensee must separately maintain records of sales of Licensed Components, and Licensee shall provide the names and addresses of each purchaser to CableLabs. Copies of such contracts for the distribution of Licensed Components must be available for inspection by CableLabs with respect to the provisions relevant to the requirements of this Section 2.4.

(b) The Licensed Components shall, where possible, conform to the Robustness Rules and the Compliance Rules. Licensed Components must conform to the Robustness Rules and the Compliance Rules when incorporated into a Licensed Product.

2.5 No Other Licenses Granted. Except as provided herein, no license is granted by CableLabs, either directly or by implication, estoppel, or otherwise, and any rights not expressly granted to Licensee hereunder are reserved by CableLabs. No license is granted for any product or component which does not comply with the OpenCable POD-HOST Specifications, the Robustness Rules, the Compliance Rules and the Certification Criteria.

3. Delivery of CableLabs Technology, Changes to the OpenCable POD-HOST Specifications.

3.1 Delivery of CableLabs Technology. CableLabs agrees to deliver to Licensee one copy of the Licensed Know-How and the associated Documentation which shall include evaluation information only and not production information, for limited development purposes only in accordance with Section 2.1 hereof, within ten days of the receipt by CableLabs of the information required by Paragraphs 2 and 3 of Exhibit D, Activation Notice.

3.2 Activation. At any time after Licensee has paid the License Fee (as defined in Section 5.1), Licensee may execute the Activation Notice attached hereto as Exhibit D in accordance with the procedures set out therein. Prior to Activation, Licensee is not licensed to distribute any products or components hereunder, and the provisions of Sections 2.2, 2.3, 2.4,

and 4.2 shall only be applicable after Activation. CableLabs agrees to deliver to Licensee one copy of the Licensed Know-How and the associated Documentation containing full production information, within ten days of the receipt by CableLabs of the Activation Notice.

3.3 Participation in Change Process. Licensee shall be advised in advance (in accordance with the applicable procedure described below) of any change to any OpenCable specification, including but not limited to the OpenCable HOST-POD Specifications. Licensee shall also have the right to participate in the drafting of, and to review and comment on, interoperability test plans, to participate in interoperability tests for implementations of the OpenCable HOST-POD Specifications and to review and comment on proposed changes to the Compliance Rules, the Certification Criteria and the Robustness Rules.

3.4 Changes. The OpenCable HOST-POD Specifications may be amended from time to time by CableLabs, to correct any errors or omissions or to clarify, but not materially amend, alter or expand the same, in accordance with the OpenCable Change Process. Licensee may participate in the OpenCable Change Process. Changes to the OpenCable HOST-POD Specifications made pursuant to the OpenCable Change Process shall not trigger any obligation to re-certify a previously certified product, to certify a product not previously subject to the Certification Criteria, nor to modify or re-label Licensed Products manufactured prior to such change. Such corrections or clarifications may become effective immediately only to the extent they do not alter the existing requirements or add new requirements, and otherwise shall become effective after not less than sixty days notice.

3.5 New Versions. Licensee acknowledges that CableLabs, with input from Cable Operators, Licensee, other CableLabs Technology Licensees and other manufacturers participating in the OpenCable Change Process and video programming providers that provide copyrighted works for transmissions to Host Devices and the copyright owners of such work, may make material changes that constitute a new version of the OpenCable HOST-POD Specifications. Such material changes may include, by way of example and not of limitation, any changes that would require new technical features not included in previous versions, or would materially increase the cost or complexity of Host Devices or POD Modules. No such material change shall become effective until all interested parties described above shall have had an opportunity to review and comment on such material change. If any such material changes are made, CableLabs shall also revise the Certification Criteria to reflect such changes. Such revisions shall become effective after eighteen months' notice.

4. Testing, Certification and Branding.

4.1 Testing and Certification. Prior to manufacturing on a production scale or distributing a Host Device or POD Module, Licensee shall participate in the CableLabs-sponsored OpenCable interoperability tests for the purpose of verifying that the proposed Host Device or POD Module conforms in all material respects to CableLabs' Certification Criteria set forth in Exhibit A. Licensee's submission for Certification to CableLabs shall include (a) a written statement confirming that the submitted Host Device or POD Module meets the Certification Criteria and (b) samples of the applicable Host Device or POD Module for audit testing by CableLabs. CableLabs shall use best efforts in the utmost of good faith to make the Certification Criteria and the certification process objective, fair and non-discriminatory.

4.2 Flexible Implementations. Nothing in this Agreement shall preclude Licensee from including in a Host Device additional features or functionalities not specified in the OpenCable HOST-POD Specifications or the applicable Core Functional Requirements so long as (a) such addition of features and/or functionalities does not (i) cause physical harm to the network or disruption of service to any Host Device or POD Module, (ii) impede or impair the delivery of any services offered over the cable system to cable subscribers, (iii) jeopardize the security of any services offered over the cable system or (iv) impede the legal rights of the cable operator to prevent theft of service; (b) the Host Device meets all applicable Compliance and Robustness Rules and (c) the Host Device is otherwise certified compliant with the OpenCable Certification Requirements set forth in Exhibit A.

4.3 Limited Implementations. Nothing in this Agreement shall preclude Licensee from deleting the home digital network interface (i.e. the IEEE 1394 interface) from a Host Device that otherwise complies with the OpenCable HOST-POD Specifications and OpenCable Terminal Device CORE Functional Requirements for Unidirectional Cable so long as the Host Device meets all applicable Compliance and Robustness Rules.

5. Payments; Accounting Requirements.

5.1 License Fee. As consideration for the licenses granted hereunder, Licensee agrees to pay CableLabs a one-time, non-refundable license fee of \$5,000 (the “**License Fee**”) within thirty days of the Effective Date. If Licensee has previously paid a fee to CableLabs for an evaluation license for the CableLabs Technology, the total amount of such previous payment shall be applied to the License Fee.

5.2 Applicable Taxes. CableLabs is exempt from income tax in the United States under Section 501(c)(6) of the Internal Revenue Code. The License Fee owed by Licensee to CableLabs is exclusive of, and Licensee shall pay, all sales, use, value added, excise, income tax, and other taxes that may be levied upon either party by taxing authorities other than the United States in connection with this Agreement, except for taxes based on CableLabs’ employees.

6. Ownership and Confidentiality of CableLabs Technology.

6.1 Ownership. All Intellectual Property Rights (except for Derivative Works made by Licensee which shall be owned by Licensee) in the CableLabs Technology shall be and remain the sole property of CableLabs or such companies that have licensed the CableLabs Technology to CableLabs, and Licensee shall have no rights or interest in such CableLabs Technology other than the rights granted to Licensee under this Agreement. CableLabs retains all right, title and interest in and to the Licensed Know-How used in connection with the CableLabs Technology that are trade secrets or proprietary information of CableLabs or its licensors, members, or affiliates, or are otherwise owned or licensed by CableLabs. Licensee will take all reasonable measures to protect CableLabs’ Intellectual Property Rights in the CableLabs Technology, including such reasonable assistance and measures as are requested by CableLabs from time to time.

6.2 Confidentiality. All of the Licensed Know-How is confidential and proprietary to CableLabs or the companies that have licensed to CableLabs. Licensee agrees that the

Licensed Know-How shall be kept confidential and shall not be disclosed by Licensee in any manner whatsoever, in whole or in part, and shall not be used other than in connection with the rights granted in Section 2 hereof. The Licensee shall be responsible for any breach of this confidentiality by its affiliates, agents, employees, representatives, former affiliates, former agents, former employees, and former representatives resulting from the Licensee's disclosure. Moreover, the Licensee shall agree to transmit the information only to its affiliates, agents, employees, and representatives who need to know the information and who are informed of the confidential nature of the information. However, Licensed Know-How does not include, and no obligation is imposed on, information which (i) is already in or subsequently enters the public domain through no breach of Licensee's obligations hereunder and which CableLabs failed to remove from public availability or to enjoin such public disclosure within 90 days after the date such information is or becomes generally known as set forth above ; (ii) is known to Licensee or is in its possession (as shown by tangible evidence) without conduct which would constitute a breach of Licensee's obligations hereunder prior to receipt from CableLabs; (iii) is developed independently by Licensee (as shown by tangible evidence) by persons who have not had, either directly or indirectly, access to or knowledge of Licensed Know-How; (iv) is lawfully received by Licensee from another party without a duty of confidentiality to CableLabs; or (v) is disclosed by Licensee pursuant to the order or requirements of a governmental administrative agency or other governmental body provided that such disclosure is pursuant to a protective order and CableLabs has been notified of such a disclosure request in advance.

7. Term and Termination.

7.1 Term. The term of this Agreement shall be the life of U.S. Licensed Patent 4,860,353, and shall be extended automatically thereafter indefinitely on a year by year basis unless earlier terminated according to its terms. Under no circumstances shall the term of the license for the Licensed Patents granted pursuant to Section 2 of this Agreement exceed the patent term of the last of the Licensed Patents to expire.

7.2 Termination of Licenses for Cause. CableLabs may terminate the licenses granted hereunder for any specific Host Device or POD Module that has not been Certified or that fails to satisfy the Robustness Rules or the Compliance Rules. However, CableLabs may only terminate the licenses pursuant to this Section 7.2 after CableLabs has (a) thoroughly evaluated the potential breach with respect to the relevant Host Device or POD Module, (b) consulted with Licensee regarding the problem, (c) given written notice to Licensee of CableLabs' intent to terminate the license, and (d) provided Licensee with a reasonable opportunity to cure the breach (where such breach is capable of being cured) and such breach remains uncured for sixty days following the date of such notice, or, if such breach cannot by its nature be cured within such period, if Licensee has not commenced, and thereafter at all times diligently pursues, commercially reasonable efforts to cure as soon as possible thereafter. In circumstances where Licensee's failure subjects Controlled Content to an unreasonable risk of unauthorized copying, the maximum period for the activities in clauses (a), (b), (c) and (d) of the preceding sentence shall be forty-five days and the cure period under clause (d) of the preceding sentence shall be thirty days.

7.3 Termination of Agreement for Cause. CableLabs may terminate this Agreement in the event that CableLabs provides notice of Licensee's material breach of any

representation, warranty or covenant set forth in Section 5.1, 6.2 or 8.2 hereto and (where such breach is capable of being cured) such breach remains uncured sixty days following the date of such notice.

7.4 Effect of Termination. Upon the termination of the licenses granted hereunder for any specific Host Device pursuant to Section 7.2, Licensee may no longer make, have made, use, sell, import or distribute such Host Device, use the CableLabs Technology therewith, nor use the CableLabs or OpenCable brand in connection with such Host Device, except that, if the termination did not result from Licensee's failure to satisfy the requirements of the Robustness Rules or the Compliance Rules, Licensee may sell or distribute any remaining Qualified POD Modules and Certified Host Devices provided that the CableLabs or OpenCable brand is not used. Upon the termination of the licenses granted hereunder for any specific POD Module pursuant to Section 7.2, Licensee may no longer make, have made, use, sell, import or distribute such POD Module, use the CableLabs Technology therewith, nor use the CableLabs or OpenCable brand in connection with such POD Module, and Licensee shall immediately return all copies of the CableLabs Technology to CableLabs, or destroy all such copies to the reasonable satisfaction of CableLabs. Licenses properly granted by Licensee in conjunction with the sale or distribution of a Certified Host Device or Qualified POD Module by Licensee pursuant to Section 2.2 prior to the date of termination shall remain in full force and effect. Unless otherwise stated herein, no termination of this Agreement or any license granted hereunder shall relieve either party of any obligation or liability accrued hereunder prior to such termination, or rescind or give rise to any right to rescind anything done by either party prior to the time such termination becomes effective nor shall the survival provisions of Section 12.13 be affected by such termination

8. Representations, Warranties, Covenants and Disclaimers.

8.1 CableLabs. CableLabs represents and warrants that:

(a) CableLabs owns all right and title to the CableLabs Technology, or otherwise has the right to grant the license thereof, and to the best of CableLabs' knowledge, free of any claim or other encumbrance of any third party. None of the CableLabs Technology is or ever has been declared invalid or unenforceable, or is the subject of a pending or threatened action for opposition, cancellation, declaration of invalidity, unenforceability or misappropriation or like claim, action or proceeding;

(b) Without investigation, it is not aware of any notice or claim, threatened or pending, that the use of the CableLabs Technology in accordance with the terms of this Agreement infringes any third party's Intellectual Property Rights. Otherwise, the CableLabs Technology is licensed on an "as is" basis;

(c) CableLabs has authorized the person who has signed this Agreement for CableLabs to execute and deliver this Agreement to Licensee on behalf of CableLabs; and

(d) This Agreement constitutes a valid and binding obligation of CableLabs, enforceable according to its terms.

8.2 Licensee. Licensee represents, warrants, and covenants that:

(a) Licensee has authorized the person who has signed this Agreement for Licensee to execute and deliver this Agreement to Licensee on behalf of Licensee;

(b) This Agreement constitutes a valid and binding obligation of Licensee, enforceable according to its terms; and

(c) As to each of the Host Devices and POD Modules made under this Agreement, Licensee covenants to CableLabs as follows:

(i) The Host Device or POD Module contains no integrated circuit, ROM, RAM, software or other device or functionality that:

(1) enables copying or recording of copyrighted works or storage of any signal that are/is delivered to the Host Device or POD Module by the cable transmission system except as permitted by the Compliance Rules; or

(2) interferes with or disables the ability of a Cable Operator to communicate with or disable a POD Module or services being transmitted through a POD Module.

(ii) The Host Device maintains control of content copies consistent with copy control instructions or the encryption mode indicator bits transmitted with digital signals as specified in the OpenCable HOST-POD Specifications.

(iii) The Host Device or POD Module is designed to effectively frustrate tampering and reverse engineering directed toward defeating copy protection schemes, in accordance with and as defined in the Robustness Rules.

(iv) The Host Device does not transmit or decode Controlled Content received from the cable television transmission without proper authorization from the Cable Operator.

8.3 Disclaimers. Except as expressly set forth in this Section 8, EACH PARTY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, (A) ANY WARRANTY THAT THE CABLELABS TECHNOLOGY DOES NOT INFRINGE THE INTELLECTUAL PROPERTY RIGHTS OF ANY OTHER PERSON OR ENTITY, (B) ANY WARRANTY THAT ANY CLAIMS OF THE LICENSED PATENT ARE VALID OR ENFORCEABLE, (C) ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, OR (D) THAT THE RIGHTS AND LICENSES GRANTED TO LICENSEE HEREUNDER COMPRISE ALL THE RIGHTS AND LICENSES NECESSARY OR DESIRABLE TO PRACTICE, DEVELOP, MAKE OR SELL POD MODULES OR HOST DEVICES. THE CABLELABS TECHNOLOGY AND ENHANCEMENTS THERETO, AND ANY OTHER ITEMS, DELIVERABLES, OR INFORMATION SUPPLIED BY OR ON BEHALF OF CABLELABS ARE PROVIDED ON AN "AS IS" BASIS.

8.4 Joint Defense of Intellectual Property Claims. If CableLabs on the one hand and Licensee on the other hand (each, a "**Defendant**"), should be sued on a single claim or

related claims that the CableLabs Technology necessarily infringes the patent or other rights of another party, or a Defendant's implementation of the CableLabs Technology infringes the patent or other rights of another party, or a single claim or related claims that the continued licensing making, using, and selling of implementations of the CableLabs Technology is in some manner in violation of law (a "**Suit**"), then the Defendants shall provide reasonable information and cooperation relating to their Suits, and CableLabs shall (subject to advice of litigation counsel) permit participation in the suit by the non-CableLabs Defendant at its own expense. Further, CableLabs and Licensee shall endeavor to negotiate in good faith a joint defense agreement whereby common claims against all Defendants may be defended in a coordinated and efficient manner. CableLabs and Licensee shall establish a joint steering committee to negotiate in good faith allocations of joint defense costs where possible.

8.5 Covenant of Non-Suit. CableLabs and Licensee hereby agree and covenant not to bring against CableLabs or any CableLabs Technology Licensee any claim alleging that the making, using, selling, offering for sale, importing, or distributing of (a) Prototypes utilizing the CableLabs Technology for the sole purpose of conducting tests and field trials with Cable Operators; (b) Certified Host Devices and/or Qualified POD Modules utilizing the CableLabs Technology; (c) Test Tools utilizing the CableLabs Technology; or (d) Licensed Components utilizing the CableLabs Technology infringes any Essential Patent Claim(s) owned or licensable by CableLabs or Licensee, *provided that* the foregoing obligation shall lapse as to CableLabs or any Licensee (including its assignee or successor) if CableLabs (in the case of such Licensee) or such Licensee (in the case of CableLabs' obligations) initiates a claim:

(a) against any CableLabs Technology Licensee or against CableLabs alleging that its making, using, selling, offering for sale, importing, or distributing such Prototypes or Certified Host Devices and/or Qualified POD Modules infringes any Essential Patent Claim(s) of CableLabs or the Licensee making the allegation; or

(b) against any CableLabs Technology Licensee or against CableLabs alleging that its making, using, selling, offering for sale, importing, or distributing such Prototypes or Certified Host Devices and/or Qualified POD modules induces or contributes to any infringement of any Essential Patent Claim(s) of CableLabs or the Licensee making the allegation.

8.6 Technology Substitution in the Event of a Claim of Infringement. If CableLabs on the one hand or Licensee on the other hand receives notice that the DFAST Technology allegedly infringes a patent of a third party, then CableLabs may, at its sole option and expense, obtain for Licensee the right to use technology that is substantially equivalent to the DFAST Technology, complies with the OpenCable HOST-POD Specifications, or modifications to those specifications, and does not infringe such patent.

9. Limitation of Liability.

In no event shall either party be liable to the other for consequential, incidental, special, indirect, punitive or exemplary damages of any kind, including without limitation loss of profit, savings or revenue, or the claims of third parties, whether or not advised of the possibility of such loss, however caused and on any theory of liability, arising out of this Agreement or based on the

making, using, selling or importing any product that implements the CableLabs Technology. In no event shall either party be liable to the other under any circumstances under this Agreement for any amount in excess of the amount paid by Licensee to CableLabs pursuant to Section 5 herein. Notwithstanding the foregoing, the limitation of liability amount set forth above shall be replaced with \$1,000,000 if Licensee is in material breach of the Compliance Rules, the Robustness Rules or any provision of Section 6.2 regarding the security or integrity of the Licensed Know-How.

For purposes of this Agreement, a breach shall be “material” only if it has resulted in or would be likely to result in commercially significant harm to CableLabs, or constitutes a threat to the integrity or security of DFAST Technology, or exposes Controlled Content to unauthorized copying. In addition, the following is a non-exclusive list of circumstances in which there is no material breach of the applicable provisions: (1) if no Licensed Know-How was released to a third party not permitted hereunder to have such information or could reasonably have been expected to have been released to such third party as a result of the breach; (2) if Licensee maintains an internal program to assure compliance herewith (including a program to assure maintenance of inventory, samples, and confidentiality of information for purposes in addition to compliance with this Agreement), the breach was inadvertent or otherwise unintentional, and the breach did not have a material adverse effect on the integrity or security of the DFAST Technology; or (3) if Licensee brought the breach to CableLabs' attention in a timely manner as required by this Agreement and such breach did not have a material adverse effect on the integrity or security of DFAST Technology.

10. Infringement by Third Parties.

Each party shall promptly notify the other in writing of any apparent infringement of the Licensed Patent(s) by any third party that is known to or comes to the attention of such party. The notification shall include an identification of the suspected product and manufacturer or distributor, as the case may be, and shall further include sufficient information of which such party is then aware to enable the other party to establish a showing of infringement.

11. Publicity.

Following the execution of this Agreement, each party may disclose in media releases, public announcements and other public disclosures, including without limitation promotional or marketing materials, the execution of this Agreement and the fact that Licensee is licensing the CableLabs Technology for Certified Host Devices and Qualified POD Modules, *provided that* such party first obtains the other party's written consent. Either party may disclose the existence of this Agreement when and as required by law or regulation.

12. Miscellaneous.

12.1 Grant of Rights to Third Party Beneficiaries. Compliance by Licensee with the terms hereof is essential to maintain the value and integrity of the CableLabs Technology. As part of the consideration granted herein, upon Activation, Licensee agrees that video programming providers that provide Controlled Content for transmissions using the CableLabs Technology to Host Devices and owners of copyright in such works (collectively, “Content

Providers”) and Cable Operators (collectively with Content Providers, “**Third-Party Beneficiaries**”) shall each be a third-party beneficiary of this Agreement and shall be entitled to bring a claim or action against Licensee to seek injunctive relief and actual damages against the manufacture, distribution, commercial use and sale of Licensee’s products that are in material breach of the Compliance Rules or the Robustness Rules that constitutes a threat to the integrity or security of the CableLabs Technology. In any such claim or action, reasonable attorneys’ fees shall be awarded to the prevailing party. Such third party beneficiaries may seek such relief for actual damages (up to the \$1,000,000 limit contained in Section 9) only after the procedures set forth in the last section of Section 7.2 hereof have been followed by such third party beneficiary and only for material breaches (i.e., breaches that constitute a threat to the integrity or security of the Licensed Know-How) that are also willful and in bad faith.

12.2 Independent Contractors. The relationship established between the parties by this Agreement is that of independent contractors. Nothing in this Agreement shall be construed to constitute the parties as partners, joint venturers, co-owners, franchisers or otherwise as participants in a joint or common undertaking for any purpose whatsoever.

12.3 No Trademark Rights Granted. Except as expressly provided in this Agreement, nothing contained in this Agreement shall be construed as conferring any right to use in advertising, publicity, or other promotional activities any name, trade name, trademark or other designation of either party hereto (including any contraction, abbreviation or simulation of any of the foregoing).

12.4 No Patent Solicitation Required. Except as expressly provided herein, neither party shall be required hereunder to file any patent application, secure any patent or patent rights, provide copies of patent applications to the other party or disclose any inventions described or claimed in such patent applications.

12.5 Law and Jurisdiction. THIS AGREEMENT SHALL BE CONSTRUED, AND THE LEGAL RELATIONS BETWEEN THE PARTIES HERETO SHALL BE DETERMINED, IN ACCORDANCE WITH THE LAW OF THE STATE OF NEW YORK, UNITED STATES OF AMERICA, WITHOUT REGARD TO ITS CONFLICT OF LAWS RULES.

12.6 Compliance with Laws. In connection with this Agreement, each party shall comply with all applicable regulations and laws, including export, re-export and foreign policy controls and restrictions that may be imposed by any government. Each party shall require its customers to assume an equivalent obligation with regard to import and export controls.

12.7 No Assignment. Licensee shall not assign any of its rights or privileges under this Agreement without the prior written consent of CableLabs, such consent not to be unreasonably withheld or delayed. No consent shall be required for the assignment of this Agreement to any wholly-owned subsidiary of Licensee or for the assignment in connection with the merger of the sale of Licensee or Licensee’s business unit provided that Licensee shall remain liable for its obligations hereunder. Any attempted assignment or grant in derogation of the foregoing shall be void.

12.8 Notice. Any notices required or permitted to be made or given to either party pursuant to this Agreement shall be in writing and shall be delivered as follows with notice deemed given as indicated: (a) by personal delivery when delivered personally; (b) by overnight courier upon written notification of receipt; (c) by telecopy or facsimile transmission upon acknowledgment of receipt of electronic transmission; or (d) by certified or registered mail, return receipt requested, five days after deposit in the mail. All notices must be sent to the address set forth below, or to such other address as the receiving party may have designated by written notice given to the other party:

- (a) for **CableLabs**,
Attention: General Counsel
400 Centennial Parkway,
Louisville, CO 80027-1266
fax: 303/661-9199; and

(b) for **Licensee**,

fax: _____

12.9 Amendments. No amendment or modification hereof shall be valid or binding upon the parties unless made in writing and signed by both parties.

12.10 Waiver. Any waiver by either party of any breach of this Agreement shall not constitute a waiver of any subsequent or other breach.

12.11 Severability. If any provision or provisions of this Agreement shall be held to be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not be in any way affected or impaired thereby.

12.12 Headings. The headings of the several sections of this Agreement are for convenience and reference only and are not intended to be a part of or to affect the meaning or interpretation of this Agreement.

12.13 Survival. The following sections of the Agreement shall survive any termination of the Agreement: Sections 5.2, 6, 7.4, 8.2, 8.3, 8.4, 9, 11, 12.1, and 12.13.

12.14 Entire Agreement. This Agreement embodies the entire understanding of the parties with respect to the subject matter hereof and merges all prior discussions between them, and neither of the parties shall be bound by any conditions, definitions, warranties, understandings or representations with respect to the subject matter hereof other than as expressly provided herein.

12.15 Most Favored Status. CableLabs shall make available to Licensee its substantial commitments or clarifications regarding the standard POD-HOST Interface License Agreement (the "**PHILA**") made available to any and all manufacturers of POD Modules and Host Devices through notice to Licensee. CableLabs also commits that the benefit of any of its modifications, clarifications or interpretations of language in the standard PHILA shall be extended to Licensee in accordance with this Section 12.15. Where CableLabs agrees to make a change to a particular licensee's PHILA, Licensee shall be given the option to upgrade to such revised agreement. Prior to such time as CableLabs makes a revised or upgraded standard PHILA, where CableLabs has agreed to include language in a particular PHILA that is more favorable than that in the then current version of the standard PHILA, CableLabs shall not

enforce the language in this Agreement with respect to Licensee to the extent that such language is less favorable than that language found in such other licensee's PHILA.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly signed and to be effective as of the Effective Date above.

[Licensee]

Cable Television Laboratories, Inc.

Signature: _____

Signature: _____

Printed Name: _____

Printed Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

LIST OF EXHIBITS:

- Exhibit A: Certification Criteria
- Exhibit B: Robustness Rules
- Exhibit C: Compliance Rules
- Exhibit D: Activation Notice
- Exhibit E: OpenCable Change Process

Exhibit A

CableLabs' Certification Criteria for Host Devices and POD Modules

In order to foster interoperability and hence retail availability of advanced digital Host Devices, and to protect the integrity of the security of cable television networks, the license granted in Section 2.2 hereof is for POD Modules and Host Devices which meet the following requirements:

1. The Host Device is submitted for Certification or the POD Module is submitted for Qualification, in accordance with the OpenCable Certification Wave Guidelines as published on the <www.opencable.com> website for the implementation in question (e.g. the Unidirectional Set Top Box, the Unidirectional Terminal, the Bidirectional Set Top Box, the Bidirectional Terminal, or the Bidirectional Set Top Box with DOCSIS).
2. The Host Device or POD Module has passed the Interoperability Audit Acceptance Test Plan as published on the <www.opencable.com> website (and as referred to in the OpenCable Certification Guidelines) for the implementation in question, as tested by CableLabs in a fair, objective, verifiable and non-discriminatory manner. If the Host Device or POD Module does not pass the audit by CableLabs, the Licensee will be informed of the specific reasons for such failure, and shall be given an opportunity to correct in a timely fashion and re-request certification in accordance with the OpenCable Certification Guidelines.

Exhibit B

Robustness Rules for the POD-HOST Interface

1. Construction.

1.1 Generally. The Licensed Products as shipped shall meet the Compliance Rules and shall be designed and manufactured in a manner to effectively frustrate attempts to modify such Licensed Products to defeat the Compliance Rules or functions of the OpenCable HOST-POD Specifications.

1.2 Defeating Functions. Licensed Products shall not include (i) switches, buttons, jumpers, specific traces that can be cut, or software equivalents of any of the foregoing, or (ii) service menus or functions (including remote-control functions), in each case by which the DFAST Technology, content protection technologies, analog protection systems, Reprotection, output restrictions, recording limitations, or other mandatory provisions of the OpenCable HOST-POD Specifications or the Compliance Rules can be defeated or by which Controlled Content can be exposed to unauthorized copying. For the purpose of this exhibit, "Reprotection" shall mean the application of an approved protection technology, when required, to Controlled Content received from a POD Module that is to be output from the Host Device, and the integrity of the system and methods by which such application is assured.

1.3 Keep Secrets. Licensed Products shall be designed and manufactured in a manner to effectively frustrate attempts to discover or reveal (i) the unique number, of a specified bit length, assigned to each Host Device, or the numbers used in the process for encryption or decryption of Controlled Content (collectively, "Keys") and (ii) the methods and cryptographic algorithms used to generate such Keys.

1.4 Documents and Robustness Certification Checklist.

1.4.1 Before releasing any Licensed Product, Licensee must perform tests and analyses to assure compliance with this Exhibit B. A Robustness Certification Checklist is attached as Exhibit B-1 for the purpose of assisting Licensee in performing tests covering certain important aspects of this Exhibit B. Inasmuch as the Robustness Certification Checklist does not address all elements required for the manufacture of a compliant product, Licensee is strongly advised to review carefully the OpenCable CORE Set-Top Terminal Functional Requirements for the implementation in question (e.g. the Unidirectional Set-Top Box, the Unidirectional Terminal, the Bidirectional Set-Top Box, the Bidirectional Terminal, or the Bidirectional Set-Top Box with DOCSIS), the OpenCable HOST-POD Specifications, the Compliance Rules and this Exhibit B so as to evaluate thoroughly both its testing procedures and the compliance of its Licensed Products.

1.4.2 Licensee specifically acknowledges and agrees that it must provide copies of the OpenCable CORE Set-Top Terminal Functional Requirements for the implementation in question (e.g. the Unidirectional Set-Top Box, the Unidirectional Terminal, the Bidirectional Set-Top Box, the Bidirectional Terminal, or the Bidirectional Set-Top Box with DOCSIS),

OpenCable HOST-POD Specifications, the Compliance Rules, the Robustness Rules, and the Robustness Certification Checklist to its responsible supervisors of product design and manufacture in such manner and at such times as to effectively induce compliance with such materials and completion of the Robustness Certification Checklist.

2. Controlled Content Paths. Controlled Content shall not be available on outputs other than those specified in the Compliance Rules, and, within such Licensed Product, Controlled Content shall not be present on any user accessible buses (as defined below) in non-encrypted, compressed form. Similarly Keys used to support any content encryption and/or decryption in the Licensed Product's data shall not be present on any user accessible buses. Notwithstanding the foregoing, compressed audio data may be output to an external Dolby Digital decoder in the clear via the S/PDIF connector. This section shall not apply to navigation data contained in the Program Association Tables (PAT) or the Program Map Tables (PMT). A "user accessible bus" means a data bus which is designed for end user upgrades or access such as PCI that has sockets or is otherwise user accessible, SmartCard, PCMCIA, or Cardbus, but not memory buses, CPU buses and similar portions of a device's internal architecture.

3. Methods of Making Functions Robust. Licensed Products shall use at least the following techniques to make robust the functions and protections specified in this Agreement:

(a) Distributed Functions. The portions of the Licensed Product that perform authentication and decryption and the MPEG (or similar) decoder shall be designed and manufactured in a manner associated and otherwise integrated with each other such that Controlled Content in any usable form flowing between these portions of the Licensed Product shall be secure to the level of protection described in Section 3(e) below from being intercepted or copied.

(b) Software. Any portion of the Licensed Product that implements a part of the OpenCable HOST-POD Specifications in software shall include all of the characteristics set forth in Sections 1 and 2 of this Exhibit B. For the purposes of this Exhibit B, "Software" shall mean the implementation of the functions as to which this Agreement requires a Licensed Product to be compliant through any computer program code consisting of instructions or data, other than such instructions or data that are included in Hardware. Such implementations shall:

(i) Comply with Section 1.3 by any reasonable method including but not limited to encryption, execution of a portion of the implementation in ring zero or supervisor mode, and/or embodiment in a secure physical implementation; and in every case of implementation in software, using effective techniques of obfuscation to disguise and hamper attempts to discover the approaches used;

(ii) Be designed to perform self-checking of the integrity of its component parts such that unauthorized modifications will be expected to result in a failure of the implementation to provide the authorized authentication and/or decryption function. For the purpose of this provision, a "modification" includes any change in, or disturbance or invasion of features or characteristics, or interruption of processing, relevant to Sections 1 and 2 of this Exhibit B. This provision requires at a minimum the use of code with a

cyclic redundancy check that is further encrypted with a private key or a secure hashing algorithm.

(iii) Meet the level of protection outlined in Section 3(e) below.

(c) **Hardware.** Any portion of the Licensed Product that implements a part of the OpenCable HOST-POD Specifications in hardware shall include all of the characteristics set forth in Sections 1 and 2 of this Exhibit B. Such implementations shall:

(i) Comply with Section 1.3 by any reasonable method including but not limited to: embedding Keys, Key generation methods and the cryptographic algorithms in silicon circuitry or firmware that cannot reasonably be read, or the techniques described above for software;

(ii) Be designed such that attempts to reprogram, remove or replace hardware elements in a way that would compromise the security or content protection features of DFAST Technology, CableLabs Technology, the Agreement or in Licensed Products would pose a serious risk of damaging the Licensed Product so that it would no longer be able to receive, decrypt or decode Controlled Content. By way of example, a component which is soldered rather than socketed may be appropriate for this means.

(iii) Meet the level of protection outlined in Section 3(e) below.

(d) **Hybrid.** The interfaces between hardware and software portions of a Licensed Product shall be designed so that they provide a similar level of protection which would be provided by a purely hardware or purely software implementation as described above.

(e) **Level of Protection.** The core encryption functions of the OpenCable HOST-POD Specifications (maintaining the confidentiality of Keys, Key generation methods and the cryptographic algorithms, conformance to the Compliance Rules and preventing Controlled Content that has been unencrypted from copying or unauthorized viewing) shall be implemented in a way that they:

(i) Cannot be reasonably foreseen to be defeated or circumvented merely by using general purpose tools or equipment that are widely available at a reasonable price, such as screwdrivers, jumpers, clips and soldering irons ("Widely Available Tools"), or using specialized electronic tools or specialized software tools that are widely available at a reasonable price, such as EEPROM readers and writers, debuggers or de-compilers or similar software development tools ("Specialized Tools"), other than devices or technologies whether hardware or software that are designed and made available for the specific purpose of bypassing or circumventing the protection technologies required ("Circumvention Devices"); and

(ii) Can only with difficulty be defeated or circumvented using professional tools or equipment, such as logic analyzers, chip disassembly systems, or in-circuit emulators or other tools, equipment, methods or techniques not described in subsection (i) above

such as would be used primarily by persons of professional skill and training, but not including professional tools or equipment that are made available only on the basis of a non-disclosure agreement or Circumvention Devices.

(f) **Advance of Technology.** Although an implementation of a Licensed Product when designed and shipped may meet the above standards, subsequent circumstances may arise which had they existed at the time of design of a particular Licensed Product would have caused such products to fail to comply with this Exhibit B ("New Circumstances"). If Licensee has (a) actual Notice of New Circumstances, or (b) actual knowledge of New Circumstances (the occurrence of (a) or (b) hereinafter referred to as "Notice"), then within eighteen months after Notice Licensee shall cease distribution of such Licensed Product and shall only distribute Licensed Products that are compliant with this Exhibit B in view of the then-current circumstances.

4. Update Procedure.

CableLabs will meet with cable television system operators, equipment manufacturers and content providers on a regular basis to revise and update these rules to ensure that the POD-HOST subsystem remains secure.

Exhibit B-1***Robustness Checklist***

Notice: This Checklist is intended as an aid to the correct implementation of the Robustness Rules for hardware and software implementations of the OpenCable HOST-POD OpenCable HOST-POD Specifications in a Licensed Product. CableLabs strongly recommends that you complete this Checklist for each hardware model or software version of a Licensed Product before releasing any product and at a sufficiently early date in design, as well as during production, to avoid product compliance redesign delays. This Checklist does not address all aspects of the OpenCable HOST-POD OpenCable HOST-POD Specifications and Compliance Rules necessary to create a product that is fully compliant. Failure to perform the tests and analysis necessary to comply fully with the OpenCable HOST-POD OpenCable HOST-POD Specifications, Compliance Rules or Robustness Rules could result in a breach of the POD-Host Interface License Agreement and appropriate legal action taken by CableLabs or other parties under the License Agreement.

If any particular design or production work is being outsourced or handled by contractors to the company, compliance with the above Rules and completion of this Checklist remains the responsibility of this company.

DATE: _____

MANUFACTURER: _____

PRODUCT NAME: _____

HARDWARE MODEL OR SOFTWARE VERSION: _____

NAME OF TEST ENGINEER COMPLETING CHECKLIST:

TEST ENGINEER: _____

COMPANY NAME: _____

COMPANY ADDRESS: _____

PHONE NUMBER: _____

FAX NUMBER: _____

GENERAL IMPLEMENTATION QUESTIONS

1. Has the Licensed Product been designed and manufactured so there are no switches, buttons, jumpers, or software equivalents of the foregoing, or specific traces that can be cut, by which the content protection technologies, analog protection systems, output restrictions, recording limitations, or other mandatory provisions of the OpenCable HOST-POD Specifications or Compliance Rules can be defeated or by which Controlled Content can be exposed to unauthorized copying?

2. Has the Licensed Product been designed and manufactured so there are no service menus and no functions (such as remote-control functions, switches, check boxes, or other means) that can intercept the flow of Controlled Content or expose it to unauthorized copying?

3. Has the Licensed Product been designed and manufactured so there are no service menus and no functions (such as remote-control functions, switches, check boxes, or other means) that can turn off any analog protection systems, output restrictions, recording limitations, or other mandatory provisions of the OpenCable HOST-POD Specifications or Compliance Rules?

4. Does the Licensed Product have service menus, service functions, or service utilities that can alter or expose the flow of Controlled Content within the device?

If Yes, please describe these service menus, service functions, or service utilities and the steps that are being taken to ensure that these service tools will not be used to expose or misdirect Controlled Content.

5. Does the Licensed Product have service menus, service function, or service utilities that can turn off any analog protection systems, output restrictions, recording limitations, or other mandatory provisions of the OpenCable HOST-POD Specifications or Compliance Rules?

If Yes, please describe these service menus, service functions, or service utilities and the steps that are being taken to ensure that these service tools will not be used to defeat the encryption features of DFAST (including compliance with the Compliance Rules and the OpenCable HOST-POD Specifications).

6. Does the Licensed Product have any user-accessible buses (as defined in Section 2 of the Robustness Rules)?

If so, is Controlled Content carried on this bus?

If so, then:

identify and describe the bus, and whether the Controlled Content is compressed or uncompressed. If such Data is compressed, then explain in detail how and by what means the data is being re-encrypted as required by Section 2 of the Robustness Rules.

7. Explain in detail how the Licensed Product protects the confidentiality of all keys.

8. Explain in detail how the Licensed Product protects the confidentiality of the confidential cryptographic algorithms used in DFAST.

9. If the Licensed Product delivers Controlled Content from one part of the product to another, whether among software modules, integrated circuits or otherwise or a combination thereof, explain how the portions of the product that perform authentication and decryption and the MPEG (or similar) decoder have been designed, associated and integrated with each other so that Controlled Content are secure from interception and copying as required in Section 3(a) of the Robustness Rules.

10. Are any DFAST functions implemented in Hardware?
If Yes, complete hardware implementation questions.

11. Are any DFAST functions implemented in Software?
If Yes, complete software implementation questions.

SOFTWARE IMPLEMENTATION QUESTIONS

12. In the Licensed Product, describe the method by which all Keys are stored in a protected manner.
13. Using the grep utility or equivalent, are you unable to discover any Keys in binary images of any persistent memory devices?
14. In the Licensed Product, describe the method used to obfuscate the confidential cryptographic algorithms and Keys used in DFAST and implemented in software.
15. Describe the method in the Licensed Product by which the intermediate cryptographic values (e.g., values created during the process of authentication between modules or devices within a Licensed Product) are created and held in a protected manner.

16. Describe the method being used to prevent commonly available debugging or decompiling tools (e.g., Softice) from being used to single-step, decompile, or examine the operation of the DFAST functions implemented in software.
17. Describe the method by which the Licensed Product self-checks the integrity of component parts in such manner that modifications will cause failure of authorization or decryption as described in Section 3(b)(ii) of the Robustness Rules. Describe what happens when integrity is violated.
18. To assure that integrity self-checking is being performed, perform a test to assure that the executable will fail to work once a binary editor is used to modify a random byte of the executable image containing DFAST functions, and describe the method and results of the test.

HARDWARE IMPLEMENTATION QUESTIONS

19. In the Licensed Product, describe the method by which all Keys are stored in a protected manner and how their confidentiality is maintained.
20. Using the grep utility or equivalent, are you unable to discover any Keys in binary images of any persistent memory devices?
21. In the Licensed Product, describe how the confidential cryptographic algorithms and Keys used in DFAST have been implemented in silicon circuitry or firmware so that they cannot be read.
22. Describe the method in the Licensed Product by which the intermediate cryptographic values (e.g., values created during the process of authentication between modules or devices within a Licensed Product) are created and held in a protected manner.

23. Describe the means used to prevent attempts to replace, remove, or alter hardware elements or modules used to implement DFAST functions?

24. In the Licensed Product, does the removal or replacement of hardware elements or modules that would compromise the content protection features of DFAST (including the Compliance Rules, the OpenCable HOST-POD Specifications, and the Robustness Rules) damage the Licensed Product so as to render the Licensed Product unable to receive, decrypt, or decode Controlled Content?

Notice: This checklist does not supersede or supplant the OpenCable HOST-POD Specifications, Compliance Rules, or Robustness Rules. The Company and its Test Engineer are advised that there are elements of the OpenCable HOST-POD Specifications, the Robustness Rules and the Compliance Rules that are not reflected here but that must be complied with.

SIGNATURES:

Signature of Test Engineer with Personal Knowledge of Answers

Date

Printed Name of Test Engineer with Personal Knowledge of Answers

Exhibit C

Compliance Rules

Licensed Products must comply with the requirements set forth in this Exhibit and be constructed so as to resist attempts at circumvention of these requirements as specified in Exhibit B, Robustness Rules.

1. Definitions

1.1 **“Consensus Watermark”** means a watermark that has identified in a notice to CableLabs from the Digital Transmissions Licensing Administrator, LLC., and that has been further identified in a notice by CableLabs to Licensee as the Consensus Watermark for purposes of this Agreement.

1.2 **“Constrained Image”** means the visual equivalent of not more than 520,000 Pixels per frame (e.g. an image with resolution of 540 vertical lines by 960 horizontal lines for a 16:9 aspect ratio). A Constrained Image can be displayed using video processing techniques such as line doubling or sharpening to improve the perceived quality of the image.

1.3 **“Controlled Content”** means content that has been transmitted from the headend with the Encryption Mode Indicator (“EMI”) bits set to a value other than zero, zero (0,0).

1.4. **“DTCP”** means that method of encryption, decryption, key exchange and renewability that is described in the specification entitled “5C Digital Transmission Content Protection Release 1.0” as may be amended from time to time.

1.5 **“High Definition Analog Form [or] Output”** means a format or output that is not digital, and is not Standard Definition Analog Form or Output.

1.6 **“Standard Definition Analog Form [or] Output”** means a format or output that is not digital, is NTSC RF, Composite, S-Video, YUV, Y,R-Y,B-Y or RGB and has no more than 483 interlace or progressive active scan lines.

2. Outputs of Controlled Content

2.1 **General.** Licensed Product shall not output Controlled Content, or pass Controlled Content to any output, except as permitted in this Section 2. For purposes of this Exhibit, an output shall be deemed to include, but not be limited to, any transmissions to any internal copying, recording, or storage device.

2.2 **Standard Definition Analog Outputs.** Licensed Product shall not output Controlled Content, or pass Controlled Content to any output, in Standard Definition Analog

Form except:

2.2.1 In any transmission through an NTSC RF, Composite, Y,R-Y,B-Y, or RGB format analog output (including an S-video output and including transmissions to any internal copying, recording or storage device) of a signal including Controlled Content, Licensed Products shall generate copy control signals in response to the instructions provided in the APS bits of the Copy Control Instruction message for Controlled Content (i.e. trigger bits for Automatic Gain Control and Colorstripe copy control systems, as referenced below). The technologies that satisfy this condition and are authorized hereunder are limited to the following:

(1) For NTSC analog outputs (including RF, Composite or S-Video), the specifications for the Automatic Gain Control and Colorstripe copy control systems (contained in the document entitled "Specifications of the Macrovision Copy Protection Process for STB/IRD Products" Revision 7.1.S1, October 1, 1999);

(2) For YUV or Y, R-Y, B-Y outputs, the appropriate specifications for the Automatic Gain Control copy control system (contained in the document entitled "Specifications of the Macrovision Copy Protection Process for STB/IRD Products" Revision 7.1.S1, October 1, 1999);

(3) Except as provided in Section 2.2.2 for Standard Definition Analog outputs not specified above, or as provided in Section 2.3, Licensed Products shall not transmit Controlled Content through such analog outputs until such time as this Exhibit is amended to permit same.

2.2.2 A Licensed Product may output Controlled Content, or pass Controlled Content through a VGA interface to a monitor, in Standard Definition Analog Form.

2.3 **High Definition Analog Outputs.** Licensed Products shall be designed and manufactured to be able either (i) to constrain the resolution of Controlled Content that is High Definition to be output through a connection capable of transmitting content in High Definition Analog Form, to a Constrained Image when designated in the EMI bits as never to be copied, or (ii) to prevent the unprotected analog output of Controlled Content that is both High Definition and designated in the EMI bits as never to be copied. After the release of the OpenCable Application Platform ("OCAP"), which will enable the download of OCAP-compliant software to a Host Device, Licensed Products shall be designed and manufactured as specified by OCAP, to be able to constrain, when required by the application, the resolution of Controlled Content that is High Definition to be output through a connection capable of transmitting content in High Definition Analog Form, to a Constrained Image.

2.4 **Digital Outputs.** Licensed Product shall not output Controlled Content, or pass Controlled Content to any output in digital form except as permitted by this section 2.4.

2.4.1 Licensed Product may output Controlled Content, and pass Controlled Content to an output, in digital form where such output is protected by using DTCP, or by another form of protection in accordance with an amendment, if any, to these Compliance Rules.

2.5 POD-Host Connections. POD Modules shall pass Controlled Content to Host Devices solely in accordance with the OpenCable HOST-POD Specifications and the Robustness Rules; and nothing in this Section 2 shall preclude such connections.

2.6 Watermark Non-Interference. Commencing eighteen months after the existence of a Consensus Watermark, Licensee (i) shall take commercially reasonable care (taking into consideration the technical characteristics, costs, commercial terms and conditions, and impact on Controlled Content and the effectiveness or visibility of the Consensus Watermark) that Licensed Products and Licensed Components do not strip, obscure or interfere with such Consensus Watermark in Controlled Content that has been decrypted; (ii) shall not design or produce Licensed Products or components the primary purpose of which is stripping, obscuring or interfering with such Consensus Watermark in Controlled Content that has been decrypted; and (iii) shall not knowingly market or distribute or knowingly cooperate in marketing or distributing Licensed Products or components the primary purpose of which is stripping, obscuring or interfering with such Consensus Watermark in Controlled Content that has been decrypted. Provided Licensee complies with the foregoing provisions of this Section 2.6, this section shall not prohibit a Licensed Product from incorporating features that are not prohibited by law.

3. Copying, Recording, and Storage of Controlled Content

3.1 General. Licensed Products, including, without limitation, Licensed Products with inherent or integrated copying, recording or storage capability shall not copy, record, or store Controlled Content, except as permitted in this section.

3.2 Mere Buffer for Display. Licensed Products integrated with display devices may store Controlled Content temporarily for the sole purpose of enabling the immediate display of Controlled Content, provided that (a) such storage does not persist after the content has been displayed, and (b) the data is not stored in a way that supports copying, recording, or storage of such data for other purposes.

3.3 Copy No More. Licensed Products shall not copy, record or store Controlled Content that is designated in the EMI bits as having been copied but not to be copied further (“copy no more”), except as permitted in section 3.2.

3.4 Copy Never. Licensed Products, including, without limitation, such a device with integrated recording capability such as a so-called “personal video recorder,” shall not copy Controlled Content that is designated in the EMI bits as never to be copied (“copy never”) except as permitted in section 3.2 or by the following:

3.4.1 Such a device may internally store such content if the stored content (a) is either securely bound to the Licensed Product doing the recording so that it is not removable therefrom or, if removable, is not playable on another device or is encrypted; and (b) is not itself subject to further temporary or other recording within the Licensed Product before obliteration; provided (c) the device is made in compliance with specified robustness requirements to avoid circumvention of (a)-(b).

Nothing in these Compliance Rules shall require the obliteration of such stored content after a stated period of time until the release of the OpenCable Application Platform (“OCAP”), which will enable the download of OCAP-compliant software to a Host Device. After the release of the OCAP, Licensed Products shall be designed and manufactured to be able, when required by the application, to obliterate the stored content after a stated period of time.

3.5 Copy One Generation. Licensed Products may make a copy of Controlled Content that is designated in the EMI bits as permissible to be copied for one generation (“copy once”), as provided in section 3.2 or 3.4.1 or provided that the copy (a) is scrambled, encrypted or uniquely bound to that device, in each case using a form of copy protection that is identified by an amendment to this section 3.5, if any, and (b) is remarked as not to be further copied (“copy no more”) in a manner that is identified by an amendment to this section 3.5, if any, and will be effective to prevent such further copies being made by devices capable of receiving a transmission of such remarked data through the outputs identified in section 2.4. In the absence of either such amendment to this section 3.5, no copy of such Controlled Content other than as permitted in sections 3.2 or 3.4.1 may be made.

3.6 No Waiver. Licensee acknowledges that the provisions of this section 3 are not a waiver or license of any copyright interest or an admission of the existence or non-existence of a copyright interest.

Exhibit D

ACTIVATION NOTICE

Licensee having entered into a POD-Host Interface License Agreement (the "License Agreement") with CableLabs hereby activates its rights under and in accordance with Section 3.2 of the License Agreement, subject to the following:

1. Licensee is a: ☐ POD manufacturer
☐ Host Device manufacturer
☐ a component manufacturer
☐ a manufacturer of test tools
(Check all categories that apply)

2. CableLabs uses a robust, commercially available hybrid cryptographic system to protect the integrity of DFAST Technology transported via common carrier between CableLabs and Licensee. The protection is necessary to ensure the authenticity and confidentiality of the order. CableLabs has chosen Network Associates' PGP to protect this distribution.

It can be obtained from:

U.S. Contact:

McAfee Software
3965 Freedom Circle
Santa Clara, CA USA
95054
Tel: (408) 988-3832
Fax: (408) 970-9727
<http://www.nai.com/>

International Contact:

Network Associates International B.V.
Gatwickstraat 25
1043 GL Amsterdam
The Netherlands
Tel.: +31-(0) 20-586 6100
Fax.: +31-(0) 20-586 6101
<http://www.pgpinternational.com/>

An example of the appropriate product is "PGP Desktop Security" available at <http://store.mcafee.com/>.

Licensee must obtain a copy of PGP and generate a public/private key pair of type Diffie-Hellman/ DSS with a size of 2048/1024. Prior to receiving the DFAST Technology, Licensee will provide its public key to CableLabs on a CD-ROM.

CableLabs will forward the DFAST Technology, encrypting the contents of the order using PGP with Licensee's public key prior to writing it to CDROM media. When Licensee receives the CDROM containing the information from CableLabs, Licensee can decrypt the information using its private key prior to using the cryptographic materials. If for some reason a Licensee cannot use PGP, it should contact CableLabs to arrange an alternative delivery option.

3. CableLabs shall send the DFAST Technology (encrypted as set forth above) necessary to activate the Full License via overnight delivery service to the attention of _____ at the following address:

4. All capitalized terms not otherwise defined herein shall have the meanings set forth in the License Agreement.

LICENSEE:

(Name of company)

Authorized Signature

Name

Title

Date

Street Address

City, State, Zip or Postal Code, and Country

Phone Number

Fax Number

Exhibit E

OPENCABLE CHANGE PROCESS

OVERVIEW

As OpenCable™ Interim documents are released, they become subject to the formal CableLabs change process that is summarized below. Recall that an Interim document is one which has undergone rigorous Member and vendor review, suitable for use by vendors to design in conformance to and for field testing.

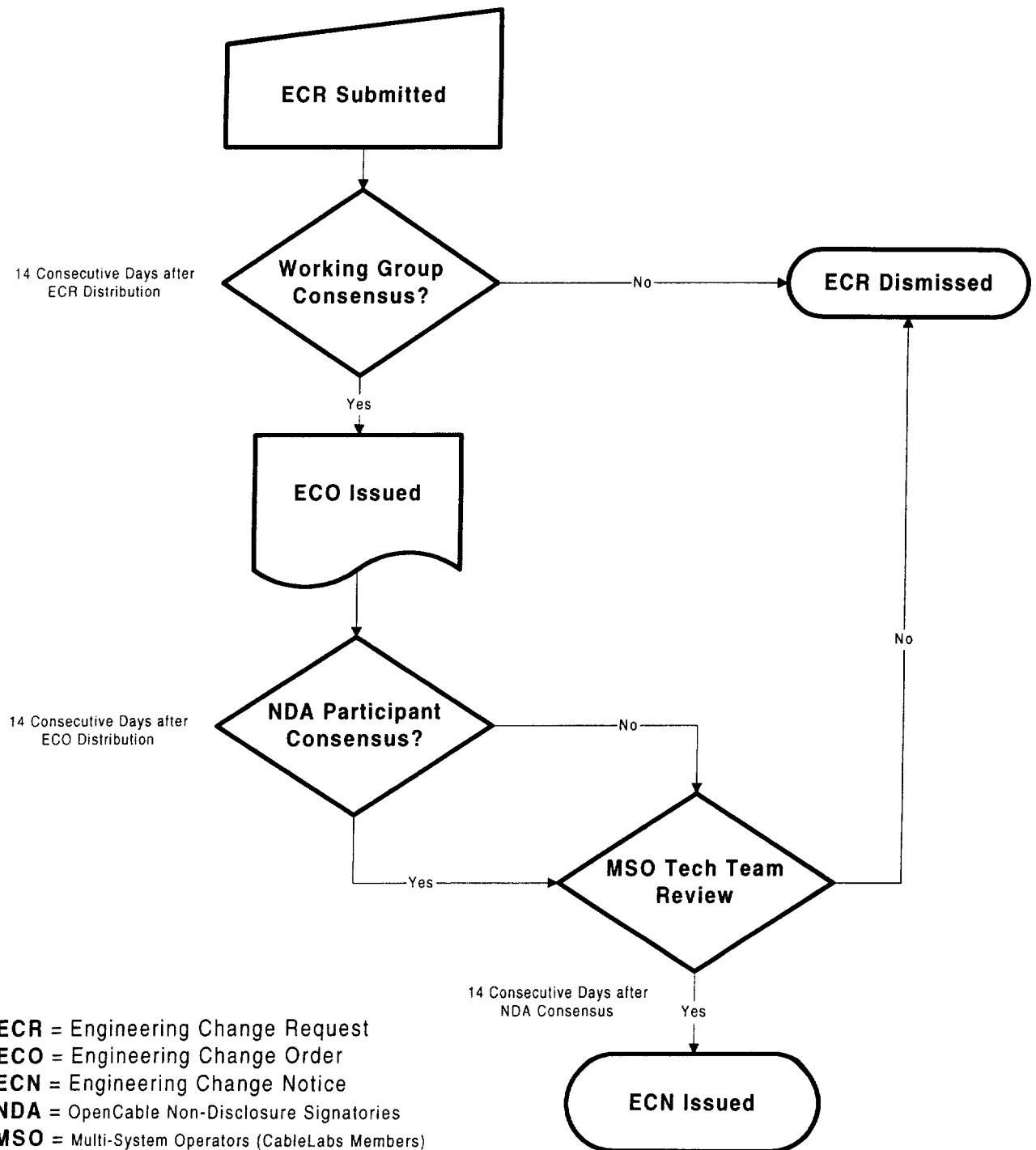
This process can be initiated by anyone with an interest in the specification at any time during the life of the specification. However, this process is of changes in the nature of clarifications and bug fixes discovered during the development and interoperability stages and is not intended to impose major revisions to the specification. Engineering Change Requests (ECRs) should be submitted electronically to opencable@cablelabs.com using the attached form.

Vendors submitting comments in the form of an ECR, grant CableLabs the right to incorporate such ECRs into relevant specifications, to disclose such ECRs to members, vendors and others participating in the OpenCable process, and to seek public review of such specifications when CableLabs deems appropriate. If Vendor is claiming any intellectual property rights in an ECR submission, such rights should be specifically identified so that such property may be treated appropriately.

Due to the large numbers of vendors that have expressed interest in OpenCable documents, vendors should be aware that the OpenCable team will not be able to provide individual responses to each vendor's ECR form. Receipt of ECR submissions will be confirmed by email. Please be assured that all ECRs will be duly considered. Final decisions concerning which ECRs will be incorporated in final documents will be the sole discretion of the OpenCable team.

The diagram on the next page provides an overview of the ECR, ECO, ECN process.

OpenCable™ ECR-ECO-ECN Process



WHICH FORM TO USE

- **Engineering Change Request (ECR) Form, attached to the end of this document.**

ECR'S

- **Can originate by anyone at anytime. Applies to Public Specifications.**
- **One ECR can include all editorial comments for a given specification**
- **One ECR must be submitted for each separate technical issue.**
- **If the same issue applies to multiple specifications, they may be combined.**
- **All required information must be supplied**
- **Must be submitted electronically to opencable@cablelabs.com**

ECR REQUIRED INFORMATION

- **Full identity of person & company making submission**
- **Document Reference Number, Section Numbers**
- **Motivation: Why are you submitting this change?**
- **Detail Problem Statement**
- **Proposed Changes - How would you fix it?**
- **Ramifications - What is the impact?**

COMMENT PERIODS

- **Comment Period for ECRs**
 - **May be submitted anytime after release of Specification**
 - **Undergoes “Specialist Review” for two weeks after being received.**
 - **If Approved, moves to Engineering Change Order (ECO)**
- **Comment Period for ECOs**
 - **Two week comment period with full NDA list.**

ECR/ECO REVIEW PROCESS

- Each ECR will be logged and assigned a sequential number by OpenCable staff and assigned a due date.
- The ECR will be distributed by email to an appropriate team of specialists for review and clarification. This specialist working group is determined by the OpenCable team, to include MSO and Vendors with a specific technical expertise and interest in the affected technology.
- Each ECR has 2-week review by specialist working group
- If approved, it becomes Engineering Change Order (ECO).
- ECO goes to full NDA List for comment and consensus (2-weeks)
- Posted on OpenCable LiveLink site
- Silence is taken as approval
- Final approval is subject to the MSO Technical Team even in the absence of NDA consensus.
- Once approved, they become Engineering Change Notice (ECN)

ECN'S

- **Posted Publicly to OpenCable LiveLink Site**
- **Notification to full NDA List upon posting**
- **Imposes changes to the specification**
- **Specification users must update based on all available ECN's.**
- **Grace period to affect ATP is typically 2 months.**

SPECIFICATION REVISIONS

- **Interim Specs will be revised as needed with each ECN release until July, 2000.**
- **Scheduled revisions will process accumulated ECN's after July, 2000**

Form for Engineering Change Requests:

Name:

Company:

Address:

City, State Zip:

Phone:

Fax:

E-mail Address:

Date of Request:

Affected Document:

Motivation:

Problem Description:

Proposed Changes:

Ramifications:

CableLabs®

Cable Television Laboratories, Inc.

RECEIVED

DEC 15 2000

December 15, 2000

**FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY**

Magalie R. Salas
Secretary
Federal Communications Commission
445 12th Street, SW
Room TW-A325
Washington, D.C. 20554

Re: Commercial Availability of Navigation Devices (CS Docket No. 97-80); and
Compatibility Between Cable Systems and Consumer Electronics Equipment (PP Docket No. 00-67)

Dear Ms. Salas:

On behalf of Cable Television Laboratories, Inc. ("CableLabs") and the multiple system operators cited in the above referenced proceedings, and in accordance with my letter of November 17, 2000 I am submitting a final POD Host Interface License Agreement.

If you have any questions, please do not hesitate to contact me.

Sincerely,



Richard R. Green, Ph.D.
President and Chief Executive Officer

cc:	Honorable William E. Kennard	Deborah Klein, Division Chief, Consumer Protection and & Competition Division
	Honorable Susan Ness	Bruce A. Franca, Acting Chief, Office of Engineering & Technology
	Honorable Gloria Tristani	Robert M. Pepper, Chief, Office of Plans & Policy
	Honorable Michael K. Powell	Jonathan Levy, Economist, Office of Plans & Policy
	Honorable Harold Furchtgott-Roth	Amy Nathan, Senior Legal Counsel, Office of Plans & Policy
	Deborah Lathen, Chief, Cable Services Bureau	
	William Johnson, Deputy Chief, Cable Services Bureau	

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